Abstracts

Analysis of Slotted, Dielectrically Loaded, Ridged Waveguide

This paper considers a symmetrical double-ridged waveguide with an axial dielectric slab inserted into it. Series expansions are used to describe the waveguide fields. The method of moments is employed to provide a system of linear equations from which the propagation constant and the coefficients of the series expansions are obtained. from these quantities, the field distributions and power flow are determined and a characteristic impedance based on a power-voltage definition is computed. The calculated propagation constants are compared with measured values.

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